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## (54) SERIES CAPACITOR FACILITY

## (57) Abstract:

PURPOSE. To provide a serial capacitor facility which enables measurement of various pieces of data upon an insulated framing, by using an optical transformer or current transformer as substitute for a usual transformer or current transformer.

CONSTITUTION: When the inter-terminal voltage of a capacitor 1 exceeds a certain level, the resistance value of an Zn oxide element 2 lowers, and the system current flowing through a capacitor 1 turns to the element 2 side, and the capacitor 1 is protected from over-voltage. The current is sensed using an optical current transformer 17 to grasp the energy which the element 2 has absorbed, while the voltage generated over the terminals of the capacitor 1 is sensed by an optical transformer 16. The current and voltage information pieces sensed by the optical current transformer 17 and optical transformer 16 are passed to a ground cubicle 15 via an optical fiber 13, and upon conversion into electrical signals, are subjected to a specified signal processing. Thereby the signals are free from influence of electric surge or noise even in the case of being used on an insulated framing 8 as a high tension part,

and data with high reliability is obtained.

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